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ORIGINAL ARTICLES

RELATION OF TRAINED NURSE TO SCHOOL AND COMMUNITY WORK.

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The ideal nurse, like the true physician, has high professional ideals, noble aspirations, a spirit of self-sacrifice for suffering humanity and an earnest desire for social welfare and good of the human race. Her life is one of devotion to duty, especially if she be in social welfare work from a sense of duty and for the good she can do.

There are different classes and grades of nurses as well as different classes and grades of physicians. The two professions are closely related and each can be of material benefit to the other or of material harm, and both in their life work are intimately related to the degenerated, diseased and suffering. Each see more of the imperfections of the human race than any other profession. The nurse is very often intimately associated with the home life of those to whom she is ministering and by indiscretion or thoughtlessness can mar the happiness of many a home. She often gains information in the home life and in a professional way, that should be held strictly confidential and as inviolable as the medical profession holds such knowledge, never to be repeated.

School work and community work calls for the highest ideals and qualifications of a nurse, also for earnest devotion to her work. In one instance she is dealing with the child in its physical, moral and mental formative stage, in the other class she is dealing with disease, illiteracy and poverty. To succeed she must embody that which is highest and best in her calling in order to bring out and develop that which is highest in the ones she seeks to help.

Special welfare work is not simply doling out charity in a routine way and leaving recipient with less self-respect, less confidence in their own ability to help themselves and with less will power to do so. It is a constructive work and the nurse is one of the most important factors in doing proper constructive developmental work either in school or district work. The larger the city the greater the demand for the trained nurse in school and community welfare work. Even the smaller cities have much need for this kind of work if viewed and executed from the proper standpoint. Nurses for this kind of work should be trained in dietetics, home economics, nursing in diseases of children and in home sanitation. She must exercise judgment, discretion and tact and be thoroughly imbued with human sympathy if the best results are to be attained. It is very important she be able to win the confidence of the children, the sick and afflicted and the inmates of the homes which she visits in her welfare work, so that her influence will be as if a "ministering angel had visited that home."

We are all God's creatures, but some have been more fortunate in selecting their progenitors for two or three generations before they were born, so that by heredity and environment are more fortunate. Such should show their good judgment by giving more sympathy and lend a helping hand to the less fortunate. Such blessings simply increase our duty and obligations to the less fortunate. Then if we do not use the talents thus bestowed upon us to a good purpose, even these may be taken away and we ourselves or those that come after us will have to suffer for our sins and neglect of duty. If by force of circumstance or lack of training we can not do this work ourselves, we can help pay some

one that is qualified to do the work and not only pay them but give them our sympathy and support.

In fifteen minutes we can not go into details of school and community work, but will outline some general suggestions for your consideration.

Every city of any size should have some form of associated charities work if nothing more than a committee of one from each church, one from the city officials and one from the school board to coordinate, systematize and harmonize the work properly belonging in this class. By properly combined united action a properly trained nurse can be employed for all her time with great benefit to the city and save money, besides the great good she can accomplish for those needing her services. This board or committee could arrange with the physicians of the city as a body to divide up the schools of the city and examine the children gratuitously at the beginning of each term.

A record on blanks or cards for the purpose should be made of all defective or diseased conditions found, and the parents notified. This record should also be kept by the committee and a copy given to the trained nurse whose duty it should be to visit each school at regular intervals and watch the progress of these cases under the direction of the committee. The nurse in all her visits to the schools should also keep a close watch for contagious diseases developing and note any insanitary surroundings and report same to the committee.

In the case of children whose parents are not able to secure proper medical, surgical, or dental work, or proper correction of errors of vision, etc., the nurse could visit the homes and render the parents material aid in securing such treatment. Incidentally on her visits she could give the mother suggestions as to diet, clothing, sanitation, ventilation and fresh air in the home. If there should be tuberculosis in the home she could give instructions as to cleanliness, destruction of sputum, the necessity for sunlight, fresh air, good food, and even show them how to prepare nourishing diet. The physicians, oculists and dentists would gladly aid in such work at request of the nurse; if not, they are not worthy the name of their profession.

This nurse could visit the homes of the poor in cases of sickness, at request of the committee, the ministers or of the physicians, and give instructions as to diet, ventilation, bathing, changing bedding, taking temperature, counting pulse, etc. She should make a record of her visits to the homes, and when they are receiving aid find out the cause of the condition in a tactful way and learn what help will render them self-sustaining again. The nurse and the committee should then secure that aid and correct the condition demanding aid. This is constructive work.

Correcting the physical imperfections and diseases of school children is also constructive work and of incalculable benefit in any community. Helping the poor to be self-sustaining and put their children in school so as to gain an education is double constructive work worthy the consideration of any city. The selfish, sordid, shrunken soul, and the mental miser may say all this is none of my business, "I am not my brother's keeper." Such are reaping the benefits of what others of a more generous nature have sown and without which they would have been less fortunate. Such shortsighted views and actions sooner or later bring their own just reward.

The germs of disease produce death and devastation regardless of station in life. The germs of smallpox, diphtheria, yellow fever, tuberculosis are no respector of persons; they respect only sanitation, hygiene and prevention in either the rich or poor, and it takes unity of action in cities to control each. If a railroad strike cuts off the food supply, the rich suffer; if the water supply fails, their property burns just the same and they are often the greatest sufferers. The greater the possessions the greater the responsibility, the greater need for protection and the greater duty to humanity which has produced most of the wealth. If humanity fails, riches will take wings and fly away.

Self-preservation commands and demands preservation and development of the human race, by the rich as well as the poor, by the high as well as the low. The laws of nature and heredity produce their effect regardless of wealth and station in life, whether we believe in the transmission of acquired characteristics or not. Then it is the primal duty of all to sustain, protect and develop that which is highest and best in every unit of the human race.

This can only be done by unity of action in the development of the physical, moral and mental of mankind, using every means for the prevention and control of disease and degeneration, and at the same time use our best efforts for the uplift of the poor and unfortunate. Anything short of this is duty left undone. One of the greatest factors in this work is the nurse properly trained and qualified for school and community work.

No city of any size has discharged its duty to its citizens until it provides for this kind of constructive work. Where there is a Board of Health and Health Officer then this work and the trained nurse should be under the direction of the Board of Health and Board of Charities properly organized. The salary paid a properly trained nurse and properly utilized will bring tenfold returns to the city and citizens.

COLITIS.

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Colitis or, as it is commonly called, dysentery is an acute (which may become chronic) inflammatory disease of the colon manifested by abdominal pain, tenesmus and small frequent stools containing mucous and blood. Three varieties have been recognized, catarrhal, amœbic and bacillary. The catarrhal form rarely occurs in epidemics and appears to have no specific etiology. The amœbic variety is due to the amœba coli and the bacillary to the bacillus of Shiga, not unlike the typhoid organism and possessing marked agglutinating properties. The last two varieties more often occur in epidemics. I will not describe the organisms, as a description can be found in any good textbook. All types are common in temperature zones but more prevalent in the tropics. The symptoms of the three varieties are similar; the onset is usually sudden but moderate, temperature 100 to 103, abdominal pain with tenderness most marked over the descending colon and sigmoid, a constant desire to defecate, severe tenesmus, small stools containing blood and mucous. At the beginning the stools only contain fecal material, but in a few hours the mucous and blood appear and vary in amount according to the type and severity of the case. The amount of ulceration helps to determine the quantity of mucous and also blood, for if the ulceration is deep and there is erosion of the fine vessels, then pure blood may appear in the stools. This condition is not confined to the colon and sigmoid, but the rectum is involved and helps to explain the frequent desire to go to stool. As a result of the ulceration of the mucous membrane of the rectum, with the exposed nerve terminals, even a small amount of mucous is sufficient to stimulate the center of defecation and keep up the desire to go to stool, and as long as the ulceration continues the mucous is secreted in abnormal quantities.

The clinical course may help in diagnosis as to the type; the catarrhal type under proper treatment rarely lasts over one to two weeks, whereas the other two forms last much longer, with a tendency to become chronic. If available, the laboratory man can be a great help in making the diagnosis, otherwise it is almost impossible to distinguish the amœbic from the bacillary. The diagnosis as a rule is not difficult. In gastroenteritis we find a higher temperature, more vomiting and absence of blood and mucous. Typhoid is distinguished by slower invasion, constant temperature, enlarged spleen, tympanites and the typhoid stool. Local affections of the rectum as syphilis and epithelioma may produce tenesmus and the passage of mucoid and bloody stools, but

close observation and time will clear any doubt. If a case of amœbic dysentery is not seen until it becomes chronic, without the aid of the microscope it may be impossible to diagnose, as some cases have gone on unrecognized and terminated in liver abscess, which is a rare complication.

We now come to the treatment, and it was this that prompted me to select this subject that by the discussions I may learn something about the treatment of this condition, as it has been very prevalent in and around our little town. The first essential for a speedy recovery but hard to inforce is absolute rest in bed. I know from personal observation that the bowel movements are not near so frequent if the patient is kept quiet in bed and made to use the bedpan, and you insist on the patient straining as little as possible while at stool. If seen at the beginning, a nonirritating purgative is indicated, oil, salts or calomel. If the stools are offensive, I prefer calomel followed by one of the others, and continued until the putrescent odor disappears. Then will be the time to try to control the tenesmus and frequency of the stools. Opium in some form is indicated. If fortunate enough to have a nurse, morphia sulphate ⅛ gr., hypodermatically given four to six times in twenty-four hours, gives excellent results. Otherwise give the plain tincture, the deodorized or camphorated tincture, or Dover's powder.

It is best to give the opium alone so the dose can be regulated according to results. Bowel irrigation in the acute stage is contraindicated, as it causes too great pain unless the bowel has been cocainized a few minutes before the irrigation, then it may be used effectively. I have used this method with sedative suppositories with very good results. In the chronic stage the irrigation treatment gives the best results. Various solutions may be given—bichloride 1/5000 to 1/3000, boric acid dram to the pint argyrol 10 to 20 per cent, silver nitrate ½ to 1 per cent. I prefer the latter. In the amœbic form quinine in 1/5000 to 1/2000 solution by irrigation is considered very efficacious. I have had no experience with it. Two methods of treatment have had its advocates in the past—one by ipecac, the other by salines. The ipecac has been superseded by emetine which is best given hypodermatically. I have used the latter along with other lines of treatment with very satisfactory results. I have used the salines with tincture of opium empirically and have tried to reason it out as scientific. A large dose of magnesium sulphate at the onset to clear the intestinal tract, then dram doses with ten drops tr. opii. every four hours. The opium checks peristalsis and reduces the pain, the salts by increasing the intestinal secretions removes the mucous in greater quantities and at longer intervals, which adds materially to the comfort of the patient. As to astringents, I have tried tannic acid by irrigation with no favorable results. Internally we may give acetate of lead, tanalbin, tincture catechu, dilute sulphuric acid, the bismuth salts, etc. As to the bismuth preparations they have to be given in very large doses and then the results are not as good as when given in inflammatory conditions of the small intestine. The so-called intestinal antiseptics are practically useless in colitis.

The last to consider, but to me the most important and the most difficult, is the diet. What will act well with one will disagree with another. A question I would like to have answered in the discussion: What shall be a guide as to the amount of nitrogenous and carbohydrate substances in the diet, to keep up the required calories, and not allow our patients to suffer from starvation? I give milk which should be boiled, but better still is buttermilk, beef, mutton or chicken broth, egg albumen, gruels, liquid peptonoids, gradually returning to the regular diet as the case warrants. The object is to give a diet that leaves the least possible residue to irritate the already inflamed bowel.

One word as to prophylaxis: keep the room free from flies, disinfect the stools and use the same precautions you would with a typhoid patient, and we will have less colitis.

SECRETIN AND THE CHANGE IN THE CORPUSCLE CONTENT OF THE BLOOD DURING DIGESTION.

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In 1895 Dolinski (1) showed that acids brought into contact with the mucous membrane of the duodenum set up a secretion of pancreatic juice. Pawlow and his co-workers (2) further decided that the acid acts reflexly through a nerve center. Later Popielski (3), working under the direction of Pawlow, showed that if acids are introduced into the duodenum the pancreatic secretion appears after resection of both vagus and splanchnic nerves, after extirpation of the solar plexus and even after destruction of the spinal cord. He concluded that the secretion arose from a peripheral reflex through scattered ganglia of the pancreas, situated mostly near the duodenum. The same results and conclusions were reached by Wertheimer and Lepage (4). At this point Bayliss and Starling (5) demonstrated the true explanation of the phenomenon. They showed that the acid acts on a substance in the duodenal mucous membrane, prosecretin, and changes it into another substance, secretin. This is carried by the blood and activates the pancreatic cells.

Bayliss and Starling (5) also showed that secretin increases the secretion of bile. We have confirmed this by noting the rate of flow of bile incidentally in the course of other experiments. Sir Edward A. Schafer (6) states that secretin increases the flow of bile and of succus entericus, but to a less extent than it affects the flow of pancreatic juice. He also states that intravenous injection of duodenal extract (evidently secretin from the context) has been shown by Cow (7) to cause the appearance of the pituitary autacoids in the cerebro-spinal fluid.

Beveridge and Williams (8) in their very ingenious exposition of what they call the proteomorphic theory of immunity claim to have the records of over two hundred cases of diabetes and exophthalmic goiter in which the number of red corpuscles per cubic millimeter of blood was increased by the administration of secretin. Their theory of the production of immunity depends greatly on the power to hydrolyze proteins which they attribute to the red blood corpuscles. If we grant that these premises are correct, then any agent capable of bringing about a sufficient increase in the number of red corpuscles becomes of therapeutic value. If secretin is to exert any influence as an immunizing agent by increasing the number of red corpuscles in the circulating blood, it is obvious that a single dose must be capable of causing a great and fairly prolonged rise in the red corpuscle count. As a means of ordinary treatment, hypodermic medication is preferable to intravenous, and if it can be shown that secretin administered hypodermically is able to increase the number of red corpuscles, then again, in order to be of service, a single dose, or at most three or four successive doses, should produce and maintain a largely increased erythrocyte count.

Acting in accordance with the ideas thus suggested we determined to try first, the effect of a certain arbitrarily fixed dose of secretin given intravenously, and second, the effect of the same dose when introduced hypodermatically.

In our selection of the animal to be used we were guided by the recent work of Lamson (9) on acute polycythemia in which he has shown that adrenalin, fright, pain, etc., cause sudden and very marked elevation of the red corpuscle count in the dog and cat, but that these agents are without effect on the erythrocyte count of the rabbit. Therefore that we might avoid the use of an anaesthetic, especially in those experiments which were to be continued over several days, in order that the attending conditions might be as uniform as possible, rabbits were employed in all of the experiments herein recorded.

The secretin was in all cases prepared from the intestine of the dog. The animal was anaesthetized by ether alone and the upper half of the small intestine removed. This intestine was carefully washed in running water and the mucous membrane scraped off with a dull knife. The scrapings were rubbed up in a mortar with sand, covered with 50 cc. of 0.4 per cent hydrochloric acid and allowed to stand for an hour or more. The mixture was then boiled actively for several minutes, neutralized with strong potassium hydroxide while boiling and again rendered faintly acid with glacial acetic acid. Finally the preparation was strained through muslin and filtered.

We found that this preparation when kept in the dark retained its potency for about five days; but if glacial acetic acid were added to the filtrate in sufficient quantity to make this 2 per cent acid by volume and the solution evaporated to dryness, the residue was found to retain its potency for at least six months. When required, a weighed quantity could be dissolved in distilled water and neutralized, thus giving a preparation of the same effectiveness as the original solution.

Over two hundred determinations of the red corpuscles per cubic millimeter of blood were made in the course of these experiments, the blood being obtained from the ear of the rabbit and the count made in the usual manner with the Thoma-Zeiss apparatus.

The dose of secretin solution selected for the first experiments was 1 cc. per kilogram of body weight. Five rabbits were taken, the erythrocytes per cubic millimeter of blood counted, and the proper dose of secretin injected into the femoral vein. The average results of this series of experiments follow: Red blood corpuscles per cubic millimeter before the injection of secretin, 4,954,000; maximum count, 6,938,000; amount of increase, 1,984,000; percentage increase, 40.04; maximum attained in 31 minutes; duration of effect 66 minutes.

The next thing to be determined was the effect of this same dose when it was introduced beneath the skin. Accordingly a second series of five experiments was carried out in which the proper dose of secretin was administered subcutaneously. This series gave results as follows: Initial count of red corpuscles per cubic millimeter of blood, 4,990,000; maximum count, 6,102,000; amount of increase, 1,112,000; percentage increase, 22.2; maximum attained in 47 minutes; duration of effect 79 minutes.

The second group of experiments convinced us that secretin injected subcutaneously was capable of exerting an influence, at least so far as affecting the number of red corpuscles in circulation was concerned. Moreover, the greater effect obtained by giving the secretin intravenously was not sufficiently pronounced to make it the method of choice so far as any therapeutic application was concerned. Therefore, we decided to adhere to the method of hypodermic administration in the remainder of our experiments, particularly as these two series of observations appeared to furnish sufficient data from which to deduce the probable action of any particular dose of secretin when given intravenously if we had determined its effect when given hypodermatically.

To determine the most effective dose we made several series of experiments, using the following doses per kilogram of body weight: 0.75 cc., 0.5 cc., 0.25 cc., 1.5 cc., 2 cc. In this way we tested the effect of amounts of secretin less than and greater than the original and arbitrary dose of 1 cc. per kilogram of body weight. Reviewing the average percentage increase with each dose we found the results to be as follows: 0.25 cc. secretin per kilogram of body weight, 11.0 per cent; 0.5 cc. secretin per kilogram of body weight, 10.1 per cent; 0.75 cc. secretin per kilogram of body weight, 17.9 per cent; 1 cc. secretin per kilogram of body weight, 22.2 per cent; 1.5 cc. secretin per kilogram of body weight, 21.2 per cent; 2 cc. secretin per kilogram of body weight, 22.4 per cent. These records indicate a dose of 1 cc. per kilogram of body weight as the most efficient dose of secretin. We also found that the longest average time the effect lasted was ninety minutes—where

the dose was 2 cc. secretin per kilogram of body weight. With a dose of 1 cc. per kilogram of body weight the average duration was 79 minutes.

There was yet to be ascertained the effect, if any, of secretin on the number of white corpuscles per unit volume of blood. Therefore other experiments were performed in which the numbers of both red and white corpuscles were noted. The dose used was 1 cc. per kilogram of body weight and it was given subcutaneously in each case. Table 1 summarizes the results of these experiments.

TABLE 1.
Dose: 1 cc. secretin solution per kilogram of body weight.

Experiment Number.		*Initial count.*	*Maximum count.*	*Amount of increase.*	*Percentage increase.*	*Maximum in minutes.*	*Duration of effect minutes.*
1	W. B. C.	4,800	7,800	3,000	62.50	30	65
	R. B. C.	(a)					
2	W. B. C.	10,400	13,600	3,200	30.76	30	60
	R. B. C.	4,960,000	5,608,000	648,000	13.06	30	30
3	W. B. C.	9,600	11,250	1,650	17.18	90	90
	R. B. C.	5,331,000	6,240,000	909,000	17.05	90	90
4	W. B. C.	6,200	14,200	8,000	129.03	30	90
	R. B. C.	7,349,000	7,840,000	491,000	6.68	30	30
5	W. B. C.	11,600	16,600	5,000	43.10	60	90
	R. B. C.	6,054,000	7,184,000	1,130,000	18.66	60	60
6	W. B. C.	20,000	34,800	14,800	74.00	60	90
	R. B. C.	5,234,000	7,200,000	1,966,000	37.56	60	90
7	W. B. C.	15,600	11,786 (b)	3,814	24.44	30	60
	R. B. C.	6,427,000	6,631,000	204,000	3.17	90	90
8	W. B. C.	12,654	15,800	3,146	24.86	60	90
	R. B. C.	6,615,000	7,760,000	1,145,000	17.30	30	60
9	W. B. C.	10,900	13,100	2,200	20.18	60	60
	R. B. C.	5,605,000	6,912,000	1,307,000	23.31	60	60
10	W. B. C.	7,400	12,200	4,800	64.86	60	90
	R. B. C.	5,343,000	6,246,000	903,000	16.90	60	60
Avgs.	W. B. C.	10,915	15,113	4,198	44.20	51	78.5
	R. B. C.	5,879,777	6,846,777	967,000	17.07	60	63.3

(a) Red corpuscle counts were not made in experiment 1.
(b) Experiment 7 shows a decrease in the white corpuscle count.

These results show conclusively that not only is secretin solution, when injected subcutaneously, able to produce an increase in the number of erythrocytes in the circulating blood but that it is capable of producing an even greater effect on the number of white blood corpuscles. In addition, however, it shows that the duration of the effect on the number of the corpuscles and the time of appearance of the maximum count are very nearly the same in the two cases—duration of effect on the red blood corpuscles 63.3 minutes, on the white corpuscles 78.5 minutes; maximum count of red blood corpuscles per cubic millimeter in 60 minutes, of white blood corpuscles per cubic millimeter in 51 minutes—the effect being produced quicker in the case of white corpuscles and persisting longer.

The next question that naturally arises is: How does secretin cause this increase in the number of both red and white corpuscles? The first and simplest explanation that presents itself is that secretin exerts a direct stimulating influence upon the red marrow of the bones and upon the lymph glands, thus leading to the formation of new cells. A second way in which it might bring about an increase in the number of circulating corpuscles is by causing variations in their unequal distribution. This might be effected by a direct constricting action on the vessels of some large area, such as the liver, or by an indirect action through stimulation of the adrenals. From the work of Lamson (9), (10), Cannon (11), and Mautner and Pick (12), it seems that we can rule out the suggestion that secretin increases the number of corpuscles in the circulating blood of the rabbit by stimulating the adrenals. As to whether secretin acts directly to promote

capillary constriction or not we have no evidence and do not know of any work on the subject that has been reported.

If the first explanation offered as to the mode of action of secretin be correct, its repeated administration over a long period of time should effect definite changes in the blood picture and, in the organs, the histological changes of increased activity. Accordingly, secretin was given hypodermatically to two rabbits to a total of forty doses. The preparation of secretin employed was a dried acid extract as in our previous experiments, and the dose of 10 milligrams per kilogram of body weight was dissolved in 2 cc. of physiological saline solution. To each of two control rabbits 2 cc. of physiological saline solution were administered subcutaneously at the same time and under the same conditions. The injections were made every day for two weeks, three times a week for the next two weeks, then every day for the third two weeks, and finally three times a week for two weeks. Thus the entire time during which the experiments were conducted was eight weeks, from December 10, 1917, to February 4, 1918.

A considerable increase in the leucocyte count was promptly produced in the secretin rabbits. This amounted to 52.52 per cent in the first week; in the third week the increase was 146.69 per cent, and even in the eighth week the total leucocyte count was still 37.56 per cent above the initial count in these rabbits. The control rabbits, meanwhile, showed comparatively slight daily variations in the leucocyte count. On two occasions the weekly average was as much as twenty per cent above the initial count, but these high counts were evidently only manifestations of the variation that normally occurs in the number of white corpuscles in the rabbit. The leucocytes in the control rabbits did not show the same great and persistent increase in number that was apparent in the secretin rabbits. Less pronounced change in the erythrocyte count was effected. However, at the end of the experiment the count was 22.94 per cent higher than at the beginning.

Three days after the last injections were given autopsies were performed upon all the animals and careful macroscopic and microscopic examination made of the various organs. When the bone marrow was examined microscopically, striking differences were noted between the specimens of marrow from the secretin rabbits and those from the controls. These changes were strongly indicative of increased activity in the bone marrow of the rabbits that had received secretin. In the case of these rabbits cells of all types, myelocytes, white corpuscles and erythrocytes, were much more numerous than in the marrow of the controls and there was a very noticeable increase in the number of nucleated red corpuscles present. In the case of the lymph glands the evidence of increased activity was less striking, but sections from the glands of the secretin rabbits showed the cells more numerous and more closely packed than in the glands from the control rabbits.

Bayliss and Starling (13) in their original investigation of the pancreatic mechanism demonstrated the presence of secretin in the intestine of the rabbit as well as in that of man, the cat, dog and other animals, and concluded that it is an identical substance in all the vertebrata. According to the hypothesis of these authors and the actual demonstration of Wertheimer (14) secretin is carried in the blood during digestion and should then be at least as potent a stimulus to blood cell formation as when experimentally introduced into the circulation. The examination of the peripheral blood during digestion, therefore, ought to reveal a change in the corpuscle content comparable with our experimental findings, *i. e.*, an increase in the number of erythrocytes and leucocytes per unit volume.

For this purpose apparently normal rabbits were selected and placed in a contrivance which might be aptly described as a pillory. This consisted of a box partitioned into two compartments. The partition was in two halves, an upper and lower, in each of which was a rounded opening. These together made an ovoid aperture through which

passed the neck of the rabbit. When in use the rabbit's head projected on one side of the partition while his body was on the other side. With the animal thus fixed an absolute fast was readily maintained. Such rigid precautions had to be taken because of the findings of Rogers (15) and Swirski (16). These authors in their work on the hunger contractions of the rabbit's stomach showed that, even if the rabbits were put in a wire-bottomed cage, when all food was withheld they would eat their excreta and their stomachs would remain continuously partly filled; but, if the animal's head was suitably fastened, the stomach completely emptied itself in about twenty-four hours.

Each rabbit was kept in the box forty to forty-four hours without food, but was given as much water as it would drink. At the end of the fasting period both the red and white corpuscles were counted. The animal was then released and put into a cage where it had free access to food and water. The food in every case consisted of green cabbage and oats. The rabbit always began eating at once and ate more or less continuously all day. Erythrocyte and leucocyte counts were made hourly for the six hours following the beginning of the feeding. We have made in all ten determinations, the results of which are summarized in table 2.

These show an average increase of 76.78 per cent in the white corpuscles and of 18.65 per cent in the red corpuscles. The maximum leucocyte count occurred 3.2 hours, and the maximum erythrocyte count 1.9 hours after the feeding started. The experimental effect of secretin is less, appears more quickly and persists for a shorter time than the findings in digestion noted above. Assuming that secretin is responsible for the latter, one would expect such differences. Our experimental solution must necessarily be less active than the secretin entering the blood during digestion; a certain delay must ensue after the feeding starts before food begins to leave the stomach and secretin to be formed; also the formation of secretin and its entrance into the circulation is presumably continuous though not uniform throughout digestion once the process is started.

These investigations appear to indicate the existence of a mechanism concerned not only in the production of the digestive agents, pancreatic juice and bile, but also in the formation of an increased number of corpuscles in the blood at a time when they are

TABLE 2.

Red and white corpuscles during digestion in the rabbit.

Animal number.		*Count before feeding.*	*First hour.*	*Second hour.*	*Third hour.*	*Fourth hour.*	*Fifth hour.*	*Sixth hour.*	*Percentage increase.*	*Maximum inc.*
1	W. B. C.	8,000	22,000	16,600	16,000	20,000	16,000	12,000	175.00	1 hour
	R. B. C.	5,920,000	5,788,000	6,504,000	5,456,000	5,920,000	5,888,000	5,400,000	9.86	2 hours
2	W. B. C.	10,000	15,000	13,000	12,700	16,000	10,000	6,600	60.00	4 hours
	R. B. C.	6,584,000	7,360,000	7,712,000	6,920,000	6,320,000	6,064,000	6,368,000	17.13	2 hours
3	W. B. C.	14,000	15,000	24,000	18,600	13,000	21,800	15,000	71.42	2 hours
	R. B. C.	5,968,000	5,624,000	5,464,000	6,800,000	7,136,000	4,960,000	5,352,000	19.56	4 hours
4	W. B. C.	15,000	18,000	19,000	22,400	20,000	20,700	12,600	49.33	3 hours
	R. B. C.	5,756,000	7,040,000	6,144,000	6,544,000	6,208,000	6,960,000	6,378,000	22.30	1 hour
5	W. B. C.	23,400	24,000	28,000	18,000	25,000	20,000	17,600	19.65	2 hours
	R. B. C.	5,488,000	6,320,000	6,880,000	5,896,000	6,008,000	5,600,000	6,192,000	25.36	2 hours
1	W. B. C.	11,000	12,000	15,000	16,000	14,200	19,400	14,000	76.36	5 hours
	R. B. C.	5,536,000	6,736,000	5,784,000	4,976,000	6,176,000	5,886,000	5,320,000	21.67	1 hour
2	W. B. C.	9,600	11,500	13,000	17,500	16,800	17,000	9,000	82.29	3 hours
	R. B. C.	6,032,000	7,328,000	6,288,000	5,792,000	6,304,000	5,360,000	5,304,000	21.48	1 hour
6	W. B. C.	16,000	14,000	22,100	19,000	35,000	18,400	14,000	118.74	4 hours
	R. B. C.	5,736,000	6,128,000	6,512,000	4,800,000	5,600,000	6,092,000	5,720,000	13.52	2 hours
7	W. B. C.	13,200	12,500	21,600	18,000	22,000	14,000	12,000	66.66	4 hours
	R. B. C.	6,240,000	6,560,000	6,880,000	6,592,000	5,936,000	5,864,000	5,896,000	10.25	2 hours
8	W. B. C.	12,400	13,200	16,000	17,000	18,400	16,400	14,500	48.38	4 hours
	R. B. C.	6,200,000	6,960,000	7,776,000	7,008,000	5,876,000	5,916,000	6,164,000	25.41	2 hours

needed to care for the absorbed products of digestion.

Conclusions.

1. It is possible to produce a considerable increase in the number of red corpuscles and of white corpuscles in the circulating blood by the administration of secretin even in small doses and by subcutaneous injection.

2. The increase in the count in both cases appears quickly and is very transient.

3. The increase in the number of white corpuscles is greater and more persistent than the increase in the number of erythrocytes.

4. The increase in the number of red and white corpuscles in the circulating blood shown to take place in the rabbit after the administration of secretin is dependent upon increased production of new blood cells due to stimulation of the bone marrow and lymph glands by secretin.

5. During digestion there occurs an increase in the number of both the red and white corpuscles per unit volume of blood.

6. These changes are comparable with the effect produced by the erperimental administration of secretin.

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STUDY OF BLOOD.

F. H. Falls, Chicago (*Journal A. M. A.*, Oct. 26, 1918), after remarking on the difficulties of teaching students the various pathologic types of blood, especially in small medical colleges without large hospital facilities, recommends the use of oxalated and citrated blood, which can be kept for hours without appreciable change, and the blood counts studied and hemoglobin estimated. He claims that the use of oxalated or citrated blood for routine class study is also advisable. And the same is true for pathologic blood as well as for the cell counts and hemoglobin of normal blood.

"Things You Should Know about Your Eyes" is the title of an article in the October *American*. It was written at the request of the editor by Dr. John E. Weeks, one of the most distinguished eye specialists in the world.

PROPAGANDA FOR REFORM

THE PATRIOTIC MEDICAL LEAGUE IN ITALY.—In a recent issue of the *Unione dei Medici Italiani per la Resistenzia Nazionale* of Italy, the work of the A. M. A. Council on Pharmacy and Chemistry is described in detail. The description of the work of the Council is by Dr. V. Ronchetti, physician in chief of the Ospedale Maggiore of Milan. He refers to the work of the Council to show what is being done in the United States in this line, "in a truly, admirable, simple and practical manner," and compares this with the ineffectual control of pharmaceuticals in Italy. He holds that it should not be a difficult matter to coordinate certain departments in Italy's universities to form the nucleus for an instituto di controllo for medicinal products—an institution which would serve as a guarantee for the sick, as a guide for the manufacturing chemists in their production, and for physicians in their application of the products. (*Jour. A. M. A.*, Sept. 14, 1918, p. 918.)

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(To be selected).

Next Meeting—Miami—May 21, 22, 23, 1919

SCHOOL HEALTH SUPERVISION.

Among the important developments in public health activities, recently emanating from Washington, is, that the Bureau of Education, in the Department of the Interior, has begun systematic organization of "school health supervision." Whether this grew out of the war or was merely hastened by it is unimportant—the great fact is that it is here. And the next great fact is that it is addressed largely to the rural schools. Most of our larger cities have made considerable progress in conservation of child life and activities, but the rural population has hardly been touched. Some four or five years ago, the American Medical Association, and the National Education Association, appointed a joint committee on "Health Problems in Education." Dr. Thomas D. Wood, of Columbia University, is chairman of that committee. Dr. Winship, editor of the *Journal of Education*, is a member. They have made some notable studies, among which is a comparison of health conditions in the slums of New York City, as pitted against the prosperous agricultural portions of the same state. And they have found that the health conditions in the slums are actually the better. And they have found further that the reason for this is that a child of the slums is continually supervised, and the moment any untoward condition presents, it is somebody's business to detect it, and to set the machinery in motion for its correction. This is a most unexpected find. But it has given great emphasis to the fact that the health of rural children needs the same careful supervision that the children of the cities do. This is further emphasized in a national way by the fact that 60 per cent of the children of the nation are rural—in our own state, 70 per cent. This move on the part of the Bureau of Education is probably the most important single step toward national betterment that has been made in many a day.

Incidentally, Florida gets a bouquet out of it. A year or so ago, Dr. Hiram Byrd undertook, with the help of three or four

counties in this state, to find a practical solution for the rural child welfare problem. His experiments were conducted along somewhat original lines, but with such signal success that it attracted the attention of the Bureau of Education, in Washington. Dr. Small even made a special trip to Florida to see it in operation.

Dr. Byrd has for some time stood among the leaders of his profession. He has devoted a dozen or so years to public health activities in the state, and during that time not a progressive chapter has been written that does not show his finger marks. He has found time to give an enormous amount of thought to the final solution of public health problems, and as an outgrowth of his studies, and his work, both in the office and in the field, he has become more and more imbued with the conviction that the solution lies in the direction of public education along public health lines—as he expresses it, making the practice of public health democratic. It is this conviction that led by easy stages to the combining of health and education.

It bespeaks good judgment for the Bureau, and great promise for the cause, that they should gravitate toward Dr. Byrd when looking for an organizer.

UNITY OF ACTION.

Unity of action and closer relations of the medical profession are as essential in times of peace as in war.

The war has changed not only America but the world.

Liberty, justice and service on the part of every individual are the demand of the world and humanity today. Liberty of action in all that is just with service that will add to human welfare.

The medical profession as one of the learned professions has the greatest opportunity and the greatest duty in its history.

Now is the time for the profession to take hold on the spirit that rules the world today: Unity of Action in Liberty, Justice and Service.

The war has been a great object lesson in union, sacrifice and service; many have responded for the cause of liberty, justice and permanent peace, without which this world war would have been a failure.

So-called personal liberty had to be sacrificed to secure justice and efficient military service. Without it no army could have been raised, trained and maintained.

So it must be with the physicians of the future if we do our duty and fall in line with the spirit of the times.

State, county, civic, community and social welfare work will be the demands in greater emphasis than ever on the physician of the future.

Millions have been trained to broader conceptions of life, better physical development and better maintainance of health conditions.

The advances in medicine and surgery have been greater than ever before and many physicians have been trained to better and more efficient work so that when they return they will not be satisfied with the same conditions as existed before the war. The New Era will demand broader, better and more efficient service. The physician with a sordid, selfish, personal gain as his main incentive to action will have to get a broader vision of his life work and duty.

The greatest physician in the future will be the one who serves best and most.

R. R. K.

SUGAR IN THE CHILD'S DIET.

It is quite evident that most of us use too much sugar and this especially applies to children. It has been said with some truth that an adult fond of sweets will not use alcohol to excess and vice versa! Too much stress can not be put upon the training of children with regard to the use of sugar. Children will do far better if kept off candy until at least six years of age, and then let it be given only in small quantities. If the daily diet is adequate candy is just so much in excess. Children who eat sweets are apt not to eat properly of vegetables, cereals without

sugar, and other foods necessary for their growth and development. Parents who do the right thing will not allow this intemperance but will insist upon the right food or no food at all for a meal or two. A little hunger will soon win the fight if the child has already been spoiled with an excessive sugar diet. Firmness, as in other matters, in bringing up the child is better than sentiment and will preserve the child's health. Children provided with an abundance of properly prepared nourishing food at the table will not have hunger in between meals. Children who are allowed to indulge in starches and sweets between meals will not have the appetite for the usual meal which may have been carefully planned. Therefore the pernicious habit of eating between meals produces cause and effect. Constipation and fermentation thrive upon an excessive carbohydrate diet. A writer in *The Dental Cosmos* relates the interesting fact of a traveler in the Philippines who ran on to a tribe with wonderfully fine teeth which had never had sugar in excess, and mentions in comparison a tribe there who constantly chew sugar cane having stubs of teeth or no teeth at all. As a people we are profiting by the restrictions on sugar made by the late war. Now that our appetites are better trained let us continue to use less sugar in our own diet and that of our children. As consultants on diet in the home let us put more stress on this matter of sweets though it be a well-worn subject. The results to be obtained by the thoughtful regulation of the carbohydrates, proper exercise, prompt attention to regular bowel elimination at stated intervals, and a well planned mixed diet consistently followed will be a revelation to many persons who have been resorting to drugs without relief. F. J. W.

COUNTY SOCIETY MEETINGS.

The Volusia County Medical Society met in Daytona on Wednesday, December 4th, as guests of Dr. Fred J. Walter, the retiring president. A symposium on pneumonia was held and those participating in the scientific program were Drs. Dean T. Smith, Daytona; Milton P. Guy and J. P. Esch, Daytona Beach; C. C. Bohannon, F. J. Walter, Daytona; Geo. A. Davis and L. C. Ingram, DeLand; J. M. Masters and H. K. Dubois, Port Orange, and E. W. Warren, Palatka. The following officers were elected for the ensuing year:

Dr. C. C. Bohannon, president; Dr. Geo. A. Davis, DeLand, vice-president; Dr. L. C. Ingram, DeLand, secretary and treasurer (reelected), and Drs. W. C. Chowning of New Smyrna and C. C. Bohannon of Daytona, delegates to the State Medical Association meeting in Miami on the 21st, 22d and 23d of May, next.

The Pinellas County Medical Society met in annual session at St. Petersburg on December 12th. They report eleven members having joined the colors, among whom are two majors, one captain and eight lieutenants. Officers elected for the ensuing year as follows: President, Dr. A. J. Wood, St. Petersburg; vice-president, Dr. C. R. Williams, St. Petersburg; secretary-treasurer, Dr. Wm. M. Davis, St. Petersburg (reelected); censor, Dr. L. Lambdin, St. Petersburg.

A RECORD OF SERVICES.

DECEMBER 6, 1918.

Dr. E. W. Warren, Acting Editor.

DEAR DOCTOR—The year is now drawing to an end, together with the war, and I wish to get down here some record of the services of members of this County Society in the War for Liberty.

Two members have given up their lives on the field of battle, killed in action:

Dr. Knowles G. Iglesby, of Bartow, an alert and conscientious physician, joined the service early in 1917. He was for many months detailed in England, and during the terrible fighting of the summer of 1918 was at the front in France. He was struck from above by a machine gun projectile of an airplane, while attending the wounded during the advance, and instantly killed.

Dr. P. L. Goss, of Mulberry, a very active member of the society, went into the service a year ago. After a period of training here, he was sent abroad. He was reported "killed in action" in the early fall.

Dr. E. R. Ackley, of Bartow, one of the most popular members of our society, received his commission in the summer of 1898. A very few weeks later he succumbed to pneumonia in one of the camps, where he had contracted influenza while on duty in the hospital.

The following men have also been in the service for varying periods: Dr. Ralph Duffy, Lakeland; Dr. W. R. Groover, Lakeland; Dr. W. H. Watson, Lakeland; Dr. J. D. Griffin, Lakeland; Dr. W. B. Moon, Lakeland; Dr. L. E. Parmley, Winter Haven.

Dr. H. P. Newman and Dr. M. E. Sherman were also commissioned, and later discharged for physical disability.

It is a remarkable and significant fact that almost the only casualties from enemy fire in the men from this county were surgeons.

Very truly yours,

BEN. V. CAFFEE, M. D.,

Sec'y Polk County Medical Society.

First Lieutenant R. D. Ferguson, M. D., with the 80th Division, 319th Ambulance Company, 305th Sanitary Train, was wounded October 8th in left leg and is now in a French hospital.

OUR HONOR ROLL.

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1st Lieut. Harper L. Proctor .....Jacksonville
1st Lieut. Shaler A. Richardson .....Jacksonville
1st Lieut. Dwight M. Rivers.....Lake City
1st Lieut. S. A. Scruggs.....Green Cove Springs
1st Lieut. E. T. Sellers .....Jacksonville
1st Lieut. George W. Sherouse .....Campville
1st Lieut. E. E. Strickland .....Miccosukie
1st Lieut. Baldwin S. Stutts .....Port St. Joe
1st Lieut. H. M. Smith.....Chattahoochee
1st Lieut. W. H. Spiers.....Chattahoochee
1st Lieut. G. C. Tillman .....Gainesville
1st Lieut. R. D. Tompkins .....Jasper
1st Lieut. J. C. Vinson .....Tampa
1st Lieut. W. J. Vinson .....Tarpon Springs
1st Lieut. Harry C. VonDahm.....Jacksonville
1st Lieut. Adam C. Walkup .....McIntosh
1st Lieut. Archie Watson .....Live Oak
1st Lieut. B. L. Whitten .....Fort Pierce
1st Lieut. John M. Whitfield .....Malone
1st Lieut. William E. Whitlock.....Fort White
1st Lieut. Charlton C. Whittle .....Nocatee
1st Lieut. Daniel B. Williams .....Lake City
1st Lieut. Albert H. Wilkinson.....Jacksonville
1st Lieut. A. J. Wood .....St. Petersburg

UNITED STATES NAVY.

Passed Asst. Surgeon T. A. Brink.....Pensacola
Passed Asst. Surgeon Clarence Hutchinson, Pensacola
Assistant Surgeon W. C. Payne .....Pensacola
Passed Asst. Surgeon M. E. Quina.....Pensacola

RED CROSS RELIEF WORK.

JERUSALEM (by mail). — How American Red Cross physicians engaged in relief work here are accomplishing worth-while results in the face of great difficulties, and what they are up against, is shown in a report just received here from W. S. Dodd, A. R. C. doctor, working at Mejdel in this section.

With two capable English trained nurses, and three native helpers, more or less useful, Dr. Dodd, his "hospital" housed under tents, performed 252 operations in seven weeks, besides giving medical examinations, treatment and counsel to hundreds of the destitute inhabitants and refugees.

His report says in part: "The work of the hospital was of the plainest sort, it might be called primitive. About twenty-five tents comprised the hospital proper, with a dispensary tent, and tents for the living quarters of the staff.

"The soil was all the purest sea-sand with thistles and scant grass; going barefoot was the universal custom, and in our own quarters we of the staff used to follow that custom with great pleasure. * * *

"The professional side of the work was of the greatest interest to me and every day was

a pleasure. The clinics numbered sixty to a hundred a day. Of course we had all classes of cases in medicine and general surgery, but by far the larger proportion of our patients were eye-cases.

"Of the 252 operations that I did in less than seven weeks, 222 were for the eyes. This is the number of persons operated on, most of them having more than one operation, perhaps on all four lids, so that I really operated on 408 eyes.

"There were some cataracts, not more than would be seen in the same number of cases elsewhere, but trachoma and its consequences accounts for almost all of the eye troubles in this land. I set out to treat these cases radically and secured fine results when I could keep the patients long enough for a reasonable after-treatment. But even so, the number of eyes that can be saved from partial and total blindness is large and the economic value of each eye thus saved is enough to make the prosecution of this line of work of the greatest importance for the redemption of the land.

"The accident cases are always interesting. I had the last end of treatment of some cases of bombed hands, of which there had been quite a number in the earlier days. These were largely in children, and were due to their picking up unexploded Turkish bombs that were lying in the fields from the time of the British advance in the Gaza region. Many fingers and even hands were lost from this cause.

"Vermin was the great enemy we had to fight. Fleas were hardly counted as a problem because we could do nothing against them, they were everywhere and inevitable, and so far as we know at present not being the carriers of any special disease, did not come within the hostility of a medical conscience.

"Lice and maggots were a daily terror. How many wounds and injuries came to us filled with maggots I can not tell. A favorite dressing for a wound is a piece of raw meat, a breeding place for maggots, and they can hardly be blamed for invading the adjoining premises.

"Many a child had to be put under chloroform in order to search out and pull from their hiding places deep in the middle ear a half dozen wriggling maggots whose every motion was causing torture to the innocent victim.

"A woman came to the clinic complaining of headache. A single sore on her face led to questioning, and when she rather unwillingly undid her turban we found an exaggerated case of impetigo, and every separate sore was as if the whole thickness of the scalp down to the bone had been punched out, and every sore was a nest of maggots. I removed sixty at the first seance, and at the first dressing next day the nurse had more to do. The headache was cured without further treatment. And these are not the most loathsome cases that we saw.

"Another great difficulty with which we had to contend was the filthy habits of the people. In spite of providing proper sanitary facilities, we were compelled to have a scavenger go around every morning and clean up the filth from around the tents of the patients. The women were as bad offenders as the men. We made it a rule that anyone known to have violated these simple sanitary regulations must go without their dinner next day, and this was quite an effective punishment."

VENEREAL DISEASES AND THE WAR.

According to the statement of the Surgeon General of the War Department, venereal disease constituted the greatest cause of disability in the army. For this condition, civilian communities have been responsible. Most cases of venereal disease in the army were brought in upon the induction of registered men. Virtually all cases were contracted within communities over which civil authorities have control.

The Army has done more than its part in combating venereal disease. Civil communities must continue the fight with vigor.

Reports from your state and city will be

closely watched by Government officers and by the nation at large.

Three per cent of the million draftees whose examination blanks first reached the Adjutant General's office in Washington had a venereal disease when they reported at camp.

The record for each state follows:

Oregon	0.59%	District of Col.	2.14%
Idaho	0.76	Kansas	2.38
Utah	0.79	Illinois	2.44
Washington	0.86	Pennsylvania	2.62
Montana	0.89	Rhode Island	2.66
South Dakota	0.95	New Mexico	2.68
California	1.15	Delaware	2.78
Wisconsin	1.21	Ohio	3.24
Wyoming	1.22	Maryland	3.28
New Hampshire	1.22	Indiana	3.33
Nevada	1.40	Arizona	3.40
Nebraska	1.53	Louisiana	3.32
Vermont	1.53	Missouri	3.52
New Jersey	1.55	Kentucky	3.77
Minnesota	1.57	Tennessee	3.80
Connecticut	1.60	North Carolina	3.90
Iowa	1.63	West Virginia	4.00
Massachusetts	1.66	Mississippi	4.05
Arkansas	1.73	Oklahoma	4.50
North Dakota	1.75	Texas	4.70
New York	1.82	Georgia	5.60
Alaska	1.90	South Carolina	8.04
Michigan	1.95	Virginia	8.45
Maine	2.02	Alabama	8.68
Colorado	2.12	Florida	8.90

EXPLANATION: Taking Maine as an example, out of every hundred draftees who arrived at the various camps to which they were sent, two (on an average) had a venereal disease. Out of every 10,000, there were 202 who had a venereal disease. It should be noted that these figures apply only to the million men whose reports first reached the Adjutant General's office from the various Camp Surgeons. Later reports may change these results.

The figures here used were furnished by the office of Surgeon General of the Army.

NEW AND NONOFFICIAL REMEDIES.

BENZYL ALCOHOL. — PHENMETHYLOL.— An aromatic alcohol occurring as an ester in tolu and other balsams, and produced synthetically. It is being used as a local anesthetic by injection and by application to mucous membrane. It is said to be practically nonirritant and nontoxic in the ordinary concentration and dosage. From 1 to 4 per cent solutions in physiological sodium chloride solution are commonly used for injection anesthesia.

CORPUS LUTEUM CAPSULES, 2 GRAINS.— Each capsule contains 2 grains of corpus luteum-Armour (see New and Nonofficial Remedies, 1918, p. 237). Armour and Co., Chicago.

CHLORAMINE-T, SQUIBB. — A brand of chloramine-T which complies with the New and Nonofficial Remedies standards. For a description of the action, uses, dosage, and chemical and physical properties of Chloramine-T see New and Nonofficial Remedies, 1918, p. 156. E. R. Squibb and Sons, New York.

HALAZONE-SQUIBB.—A brand of halazone complying with the standards for halazone, N. N. R. It is marketed only in the form of Tablets Halazone-Squibb, 1-16 grain, each containing halazone-Squibb, 1-16 grain, anhydrous sodium carbonate, 1-16 grain, and sodium chloride, 1⅜ grains. Halazone tablets are used for the sterilization of drinking water, one to two tablets being added to one quart of water. E. R. Squibb and Sons, New York. (*Jour. A. M. A.*, Sept. 28, 1918, p. 1059.)

PHENMETHYLOL. — A nonproprietary brand of benzyl alcohol complying with the tests and standards for benzyl alcohol. Hynson, Westcott and Dunning, Baltimore, Md.

PHENMETHYLOL AMPULES, 1 PER CENT.-H. W. and D.—Each ampule contains 5 cc. of a sterile solution of phenmethylol H. W. and D. 1 gm. in physiological sodium chloride solution 99 gm. Hynson, Westcott and Dunning, Baltimore, Md.

PHENMETHYLOL AMPULES, 2 PER CENT.-H. W. and D.—Each ampule contains 5 cc. of a 2 per cent solution of phenmethylol H. W. and D. in physiological sodium chloride solution. Hynson, Westcott and Dunning, Baltimore, Md.

PNEUMOCOCCUS ANTIGEN (ROSENOW), LILLY. — A pneumococcus vaccine prepared

by digesting a suspension of pneumococci until the bacteria are partially autolyzed. E. C. Rosenow believes that the protective power of this vaccine is greater than that of one prepared in the usual way. It is marketed in 5 cc. vials, each cc. containing twenty million partially autolyzed pneumococci. Eli Lilly and Co., Indianapolis. (*Jour. A. M. A.*, Oct. 26, 1918, p. 1407.)

PHENMETHYLOL AMPULES, 4 PER CENT.-H. W. and D.—Each ampule contains 5 cc. of a 4 per cent solution of phenmethylol H. W. and D. in physiological sodium chloride solution. Hynson, Westcott and Dunning, Baltimore, Md. (*Jour. A. M. A.*, Oct. 19, 1918, p. 1313.)

THROMBOPLASTIN SOLUTION-ARMOUR.—An extract of cattle brain in physiological sodium chloride solution prepared according to the method of Hess. It complies with the description of Solution Brain Extract, N. N. R. As a hemostatic, the solution is applied directly to bleeding tissues or applied by means of a spray or tampon. See New and Nonofficial Remedies, 1918, p. 136, under "Fibrin Ferments and Thromboplastic Substances" (Kephalin). Armour and Co., Chicago.

Publisher's Notes

STERILIZING THE NASOPHARYNX.

Evidence is accumulating of the value of Dakin's antiseptics for sterilizing the throat and nose of persons exposed to or suffering from Spanish influenza and other diseases transmitted by the secretions of the upper respiratory tract. The simplest and most convenient of these remedies to use is Chlorazene, which is available in tablet form for the preparation of aqueous solutions, which may be used for spraying or gargling. Such solutions are convenient, can be made up by anyone with ordinary intelligence, and are exceedingly efficient.

When possible the aqueous solution should be supplemented by the oil spray of Dichloramine-T dissolved in Chlorcosane, a 1- to 2-per cent solution being employed for this purpose. This should be applied at least twice daily, where possible by the physician himself or by the nurse. The use of Dichloramine-T assures prolonged contact with the mucous membrane of an exceedingly powerful germicide, which can be used without danger to the patient.

The extensive experimental work conducted by The Abbott Laboratories, preliminary to placing the Dakin products at the disposal of American physicians, seems to be justified by the splendid results which are being obtained.

A DECIDED INNOVATION.

The profession will no doubt be interested in the recent announcement of The Owl Drug Co., stating that beginning December 1st no preparations for the self-treatment of venereal diseases will be sold in the twenty-nine retail stores of the company, located on the Pacific Coast and in the Middle West.

When such preparations are called for, the salesman is instructed to explain the new policy of the company and give the customer a carefully prepared confidential circular, which explains the seriousness of all venereal diseases and the importance of consulting a reliable physician, and a list of such will be furnished upon request.

Standard preparations, recognized by the profession, will be carried in the prescription room and sold only upon orders from a physician.

Some weeks previous to this announcement the laboratories of The Owl Drug Co. discontinued the manufacture of several preparations for self-treatment.

This innovation was decided upon after the management gave due consideration to the report of the Surgeon General of the United States Army showing an alarming prevalence of venereal diseases among the civilians who were examined preparatory to entering the army.